

Notice of Allowability

Application No.

09/581,464

Examiner

Anh-Vu H. Ly

Applicant(s)

SEIFERT ET AL.

Art Unit

2667

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed August 25, 2005.
2. ☒ The allowed claim(s) is/are 19, 21-28, 30-38 renumbered as 1-18 respectively.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

DETAILED ACTION

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with George W. Neuner on November 11, 2005.

The application has been amended as follows:

In The Claims

19. (Currently Amended) A multiplexer circuit comprising at least two input channels and an output channel, each input channel comprising a first transmission gate which can be switched on by a select signal for connecting the input channel to the output channel, at least one of the input channels comprising a bypass circuit for preventing a current flowing through the first transmission gate from reaching the other input channel, and a second transmission gate, said multiplexer circuit further comprising a control circuit for controlling said bypass circuit, wherein said bypass circuit is adapted to be switched on and off, and said control circuit senses a value of a voltage in the input channel and switches said bypass circuit dependent upon the value of said voltage in the input channel compared to a predetermined range of values, wherein, said control circuit controls said bypass circuit by means of said select signal and an input voltage applied to said input channel.

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29. (Canceled).

Claim 38, in line 22, insert - - - at the end of the claim.

Allowable Subject Matter

2. Claims 19, 21-28, 30-38 are allowed.

The following is an examiner's statement of reasons for allowance:

The prior art does not teach or fairly suggest that the control circuit controls the bypass circuit by means of a select signal and an input voltage applied to said input channel and switches the bypass circuit dependent upon the value of the voltage in the input channel to prevent a current flowing through the first transmission gate from reaching the other input channel and a second transmission gate, as specified in independent claim 19.

The prior art does not teach or fairly suggest wherein the sense circuit is constructed and adapted to sense a voltage in the input channel at the input of the first transmission gate or between the first transmission gate and the second transmission gate, and wherein a pull-down bypass circuit is formed of a first NMOS transistor having a drain and a source, the drain of which is connected with an output of the first transmission gate and the source of which is connected with the ground level, and wherein the sense circuit is formed of a PMOS transistor and a second NMOS transistor in series, the second NMOS transistor having a source and a drain, the source of the second NMOS transistor being connected to ground level and the PMOS transistor having a source and a drain, the source being connected to an output of the first transmission gate, and wherein the drains of PMOS transistor and second NMOS transistor are

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connected to each other and to the gate of the first NMOS transistor in the bypass circuit, as specified in independent claim 37.

The prior art does not teach or fairly suggest wherein the sense circuit is constructed and adapted to sense a voltage in the input channel at the input of the first transmission gate or between the first transmission gate and the second transmission gate, and wherein a pull-up bypass circuit is formed of a first PMOS transistor having a drain and a source, the drain of which is connected with an output of the first transmission gate and the source of which is connected with power supply voltage level, and wherein the sense circuit is formed of a second PMOS transistor and a NMOS transistor in series, the second PMOS transistor and the NMOS transistor each having a source and a drain, the source of the second PMOS transistor being connected to power supply voltage level and the source of the NMOS transistor being connected to an output of the first transmission gate, and wherein the drains of the second PMOS transistor and the NMOS transistor are connected to each other and to the gate of the first PMOS transistor in the bypass circuit, as specified in independent claim 38.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.


Ko (US Patent No. 5,955,912) discloses multiplexer circuits.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anh-Vu H. Ly whose telephone number is 571-272-3175. The examiner can normally be reached on Monday-Friday 7:00am - 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on 571-272-3179. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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01/14/05